

SASMEE SOUTH AUSTRALIAN SOCIETY OF MODEL & EXPERIMENTAL ENGINEERS **BULLETIN**

THE OFFICIAL JOURNAL
OF
THE SOUTH AUSTRALIAN SOCIETY OF
MODEL AND EXPERIMENTAL ENGINEERS



DEC 79 — FEB 80

What's On At SASMEE

DECEMBER 1979.

Saturday	1	Working Bee 1pm.
Tuesday	4	Committee Meeting 7.30pm.
Sunday	9	Club Day with SANTA
Tuesday	11	General Meeting 8pm.
Saturday	15	Public Field Day 2-5pm.

JANUARY 1980.

Tuesday	1	Club Play Day 2pm.
Saturday	5	Working Bee 1pm.
Tuesday	8	General Meeting 8pm.
Saturday	19	Public Field Day 2-5pm
Tuesday	22	Informal Meeting 8pm

FEBRUARY 1980.

Saturday	2	Working Bee 1pm.
Sunday	3	Public Field Day 2-5pm
Tuesday	5	Committee Meeting 7.30pm.
Tuesday	12	General Meeting 8pm.
Saturday	16	Public Field Day 2-5pm.
Tuesday	26	Informal Meeting 8pm.

MARCH 1980.

Saturday	1	Working Bee 1pm.
Sunday	2	Public Field Day 2-5pm.
Tuesday	4	Committee Meeting 7.30pm.
Tuesday	11	General Meeting 8pm.
Saturday	15	Public Field Day 2-5pm.
Tuesday	25	Informal Meeting 8pm.
Sunday	30	Charity Field Day 2-5pm.

EDITORIAL.

I wish to thank Members for the material given to me for publication.

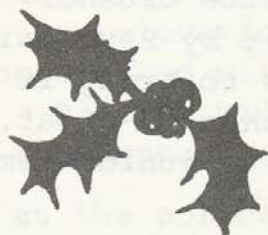
It is regretted that in most cases I have been unable to incorporate them into the Bulletin, principally due to production and postage cost, these costs being directly proportional to the bulletin size.

It is hoped that contributions will continue to be sent as I can assure contributors that their articles have been filed for future use.

With the relentless passage of time, 1979 draws to a close. For SASMEE 1979 has been a year of real achievement and no doubt our Committee can pride itself in a job well done. At this time of the year we talk of "New Year Resolutions", or could we hope for the "New Year Revolution", a revolution where as members our energies and enthusiasm are directed towards the well being of SASMEE, then further achievements may result through greater membership participation in all our activities. Be in it?

To all Members and their families go my best wishes for 1980 and a safe and happy festive season.

Peter Denholm.



*Best wishes for Christmas
and happiness in the New Year*

The SICK LIST

Mary Homann has during the past months undergone major surgery. At present Mary is making a good recovery.

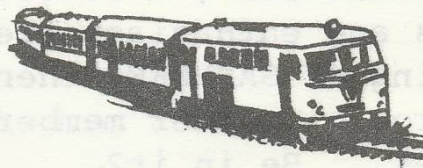
Bert Frances and Terry Fitton have been in Hospital for a hernia operation.

Charlie Manning required another bypass operation.

Nina Brownlow is regaining strength from her recent illness.

Paul Griscti is almost a new man, believe he is now in the best of health and many kilos lighter.

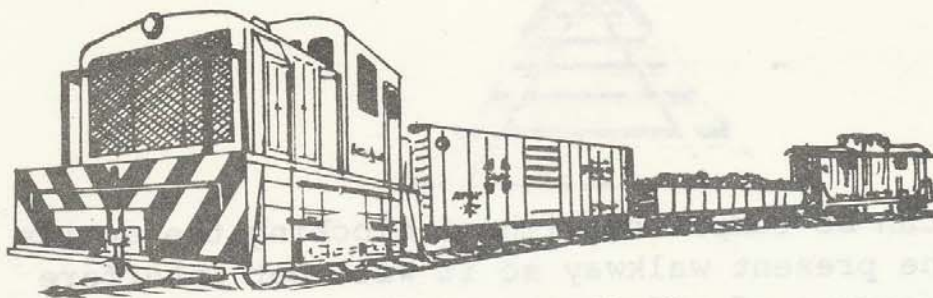
Our best wishes are extended to you all for a speedy recovery.



Our Thanks

Our appreciation is extended to Vic Thrum for bringing into life our new briquette crusher. I believe that the new crusher was built by Paul Griscti but required a few additions to bring it into action. Thanks Vic, the new crusher is great. Vic is the father of Gavin, an active junior member of the Society.

Many thanks to those who contributed those "bits and pieces" to our August Auction. Tom England did a great job with the hammer, the nett result being \$140. added to our bank account. How about hoarding up for the next years Auction?



THE GROUND LEVEL TRACK. by Ian Clark.

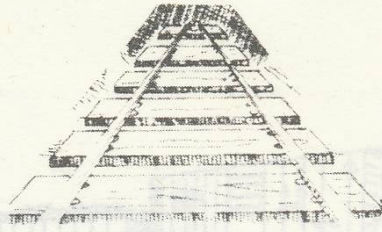
The wooden trestle bridge has now been completed and the flooring is also in place. The whole structure has been treated with creosote.

The 80lb tramway rails are placed in position along the viaduct section and are supported on steel aprons placed over the concrete piers. The tramway rails are welded together to form a continuous section. They are anchored at the Northern end of the viaduct and are free to expand over their entire length.

Additional support is provided by vertical tubular columns midway between the piers. A continuous length of track is now laid along the entire length of the trestle bridge and viaduct sections. This part of the track is laid on both bridges without the need for the use of wooden sleepers, the nail heads being level with the bridge floor. Acting on the professional advice of our honorary Civil Engineer Alex Ide, it is intended to place the two main curves on a reinforced concrete bed 15" wide and 3" thick. The concrete will be supported on a bed of compacted quarry rubble 4" deep. The concrete will have no super elevation, this will be incorporated in the wooden sleepers which will be tapered to the required amount of super elevation, the track being able to expand on the concrete bed without producing any loss of super elevation. Ballast will be placed around the sleepers purely for appearance.

The shallow cutting at the northern end of the grounds is complete and is ready for the track foundation. At the "Clubhouse" end of the track it is intended to build an overpass for pedestrian traffic. This will make the footpath about 18" higher than at present but the approach angle of inclination will be kept the same as the existing pathway.

This section will be excavated and the sides bricked with cement bricks. The walkway will be formed, a reinforced concrete slab supported at the bricked sides.



This work can be completed without blocking the entire width of the present walkway so it will not interfere with the progress of pedestrian traffic.

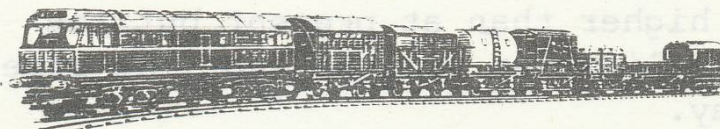
All the required straight lengths of track have been made on Ron Bloyd's track jig as well as part sections which will be used to form the curved track sections of the main track loop. Provision is also made for extra track lengths for sidings and passing loops the details of which are being examined by the track Sub-committee and will be presented shortly.

Peter Lewis and myself approached the Unley Council for assistance with some earthwork, levelling and sealing of the access road which runs along the southern boundary of the SASMEE grounds. I have sent a letter to the Town Clerk seeking assistance and an answer is shortly expected.

If the Council agree to help it will save the Society a considerable amount of money.

Each year the Council provides grants of assistance to Clubs and sporting bodies in the Unley district.

Our thanks to the efforts of Phil Waugh, Howard Bateup, Glen and Angus Templeman, Wally Brownlow, Jack Davey, Alan Brabham, Gavin Thrum, John Doley, Fred Gordon, Alex Ide, Bill Holdsworth, Tom Fowler, Barry Gamble, Bill Coles, Alan Lethbridge, Ron Bloyd and Peter Lindblom.



From the MINUTES

At a recent General Meeting a Sub-Committee was appointed to prepare a submission to the General Meeting on the organisation of an Exhibition.

It is envisaged that an Exhibition could be planned for Mid 1980 or Early 1981. The Exhibition being held at SASMEE over the week-end, the Exhibition hours between 2-5 each day.

It is considered by many, that an Exhibition held at SASMEE would attract significant interest from the modelling fraternity and the General public. Indeed it is an opportunity for the fraternity to see Models of the past that have been locked away for years. Further, we trust that additional revenue would be created to assist our developmental projects.

To assist the Sub-Committee in planning the Exhibition it would be appreciated if members could complete the attached questionnaire.

At our August General meeting the members discussed an article written by our Secretary Bryan Homann relating to the disposal of a Model Engineer's equipment and models following his death.

It was resolved that on the death of a Member, the Society President will appoint 2 members who will approach the surviving family to offer assistance in the disposal of any equipment and models that may not be required by the family.

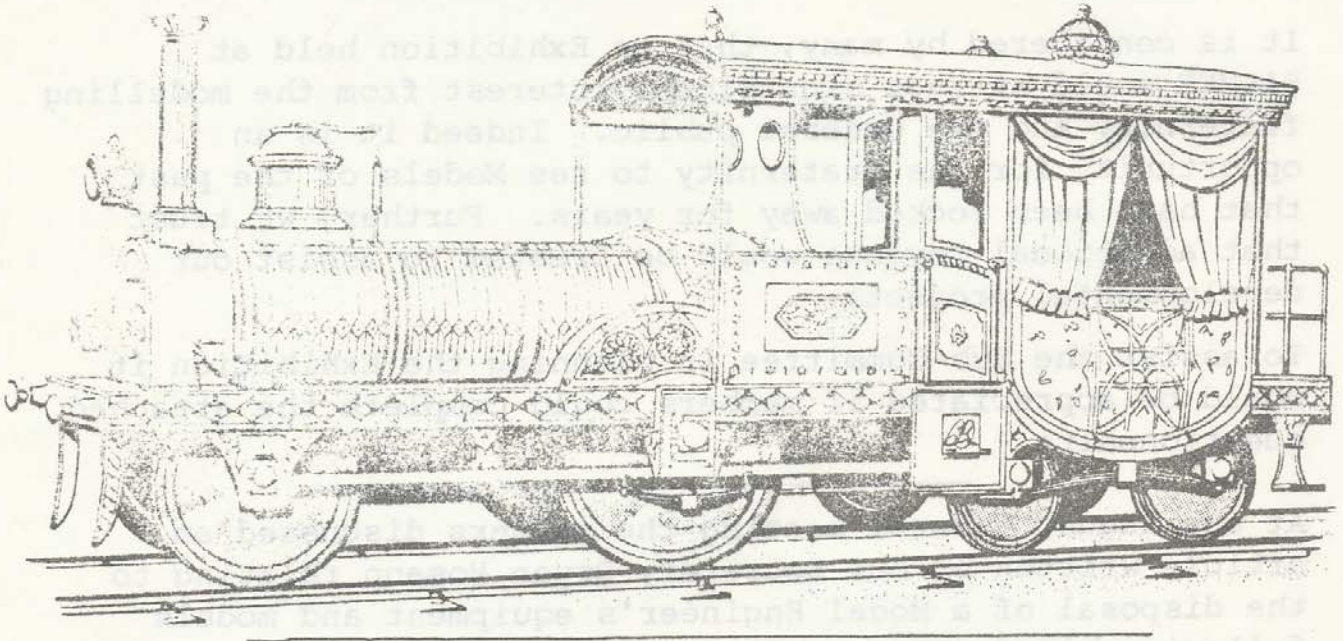
It is hoped that by adopting such a procedure the surviving family will be guaranteed a fair disposal price for models and equipment, plus ensuring that these items are made available to those in the Model Engineering fraternity.

Due to an increase in the amount of valuable material being given to our Library, the members approved a quotation from Phil Waugh for the construction of Library Cupboards, these have now been completed and stand elegantly on the Clubhouse wall.

Chit Chat

The Khedive of Egypt's engine was built in 1859 by Robert Stephenson. The engine and passenger compartment are all on the same frame. It was built to the standard gauge and ran on the Egyptian State Railways. It was lavishly and expensively decorated. As the lines were not fenced it is surprising that no cow catcher was fitted.

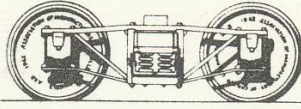
The Khedive of Egypt's engine, 1859



Heard that one of the major suppliers of Loco drawings and castings is preparing drawings etc. for the SAR 500 Class in 5" gauge.

Members have approved the purchase of an 8" grinder and a full length 5/8" drill Stand. This equipment is being acquired to equip our long awaited Workshop.

Unofficially, I understand consideration is being given to converting the existing shed at the steam up bay into the workshop. The existing shed would be insulated and lined, a 'lean to' of approximately 18ft by 8ft could be erected alongside the workshop to store the riding trucks.



GAUGES AND WHEEL STANDARDS.

Prior to turning the wheel castings for a $7\frac{1}{4}$ " Tich advice was sought as to what profiles would be required to operate on our new $5"-7\frac{1}{4}"$ ground track.

In his usual diligent manner, Ian Clark presented a host of information obtained from data produced by the ME, Tom England and the Sydney Live Steam Loco Society.

Some years past the Society of Model and Experimental Engineers in collaboration with the Model Engineer prepared a standard to which it was hoped the loco constructors would adhere, which no doubt would be of great benefit to all.

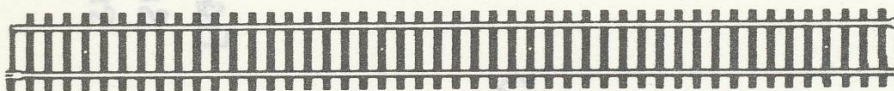
This wheel standard is detailed in Figure 1.

It has been considered by many that the flange width of the SMEE and ME standard is too narrow, resulting in many modified profiles.

SASMEE prepared a standard for the 5" gauge Raised Track, Riding Truck, this standard is detailed in Figure 2, and I believe has been adopted from the Sydney Live Steam Locomotive Society Standard.

Tom England in the construction of his $7\frac{1}{4}$ Britannia, has adopted a profile as detailed in figure 3. You will note that Tom has a wider flange and a greater tyre width than the SMEE and ME Standard. It at first seemed somewhat confusing, but in fact the real critical dimension is the flange width. Assurance has been given that on the SASMEE Track the check rails in the points will have sufficient clearance to meet the flange widths as detailed in the drawings on figures 1, 2 and 3.

It is envisaged that a $5"-7\frac{1}{4}"$ point built by Paul Griscti may be used as a pattern for our points, further, it should be at SASMEE in the near future, for those that wish a "check out".



GAUGE	BACK TO BACK	TYRE WIDTH	FLANGE DEPTH	ROOT RADIUS	FLANGE RADIUS	CHAMFER	TREAD DIAMETER POINT	M/C ⁹ DIMENSION	M/C ⁹ DIMENSION	FLANGE WAY
0	8	W	D	RR	FR	X	P	Y	Z	F
2½"	2.281	0.268	0.085	0.035	0.020	0.015	0.090	0.055	0.034	0.093
63.5 m/m	58	6.8	2.2	0.9	.50	.40	2.3	1.4	0.90	2.3
3½"	3.281	0.375	0.110	0.030	0.030	0.020	0.126	0.076	0.051	0.130
89 m/m	83	9.5	2.8	1.3	.75	.50	3.2	1.9	1.3	3.3
5"	4.687	0.535	0.140	0.070	0.045	0.030	0.176	0.106	0.077	0.190
127 m/m	119	13.6	3.6	1.8	1.2	.80	4.5	2.7	1.95	4.8
7½"	6.800	0.776	0.203	0.100	0.065	0.040	0.254	0.154	0.110	0.270
194 m/m	172	19.7	5.2	2.5	1.7	1.00	6.4	3.9	2.8	6.9
9½"	8.900	1.017	0.266	0.133	0.086	0.050	0.336	0.203	0.146	0.350
241 m/m	225	25.8	6.8	3.4	2.2	1.30	8.5	5.15	3.7	8.9
10¼"	9.600	1.097	0.287	0.144	0.093	0.060	0.363	0.219	0.158	0.380
260 m/m	244	27.8	8.0	3.7	2.4	1.50	9.2	5.55	4.0	9.7

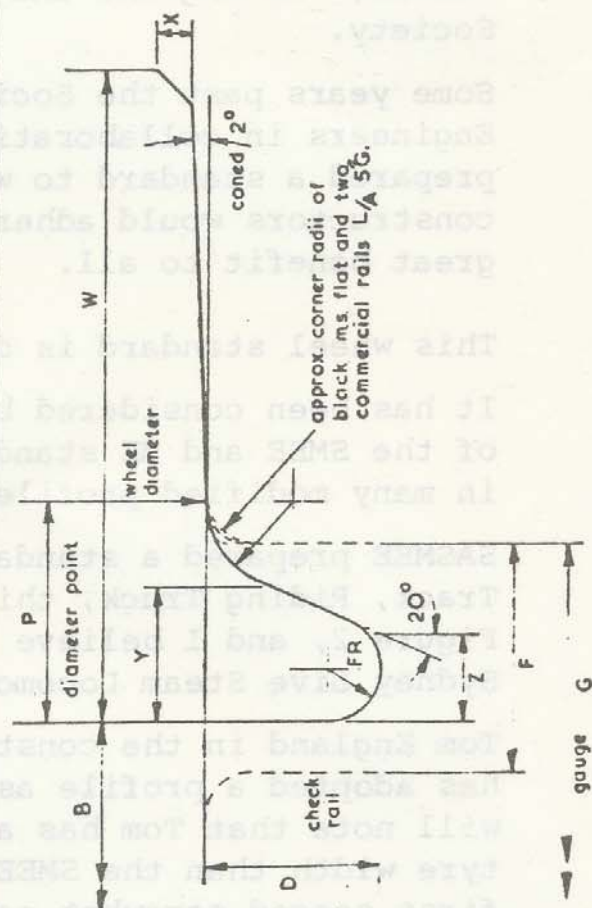
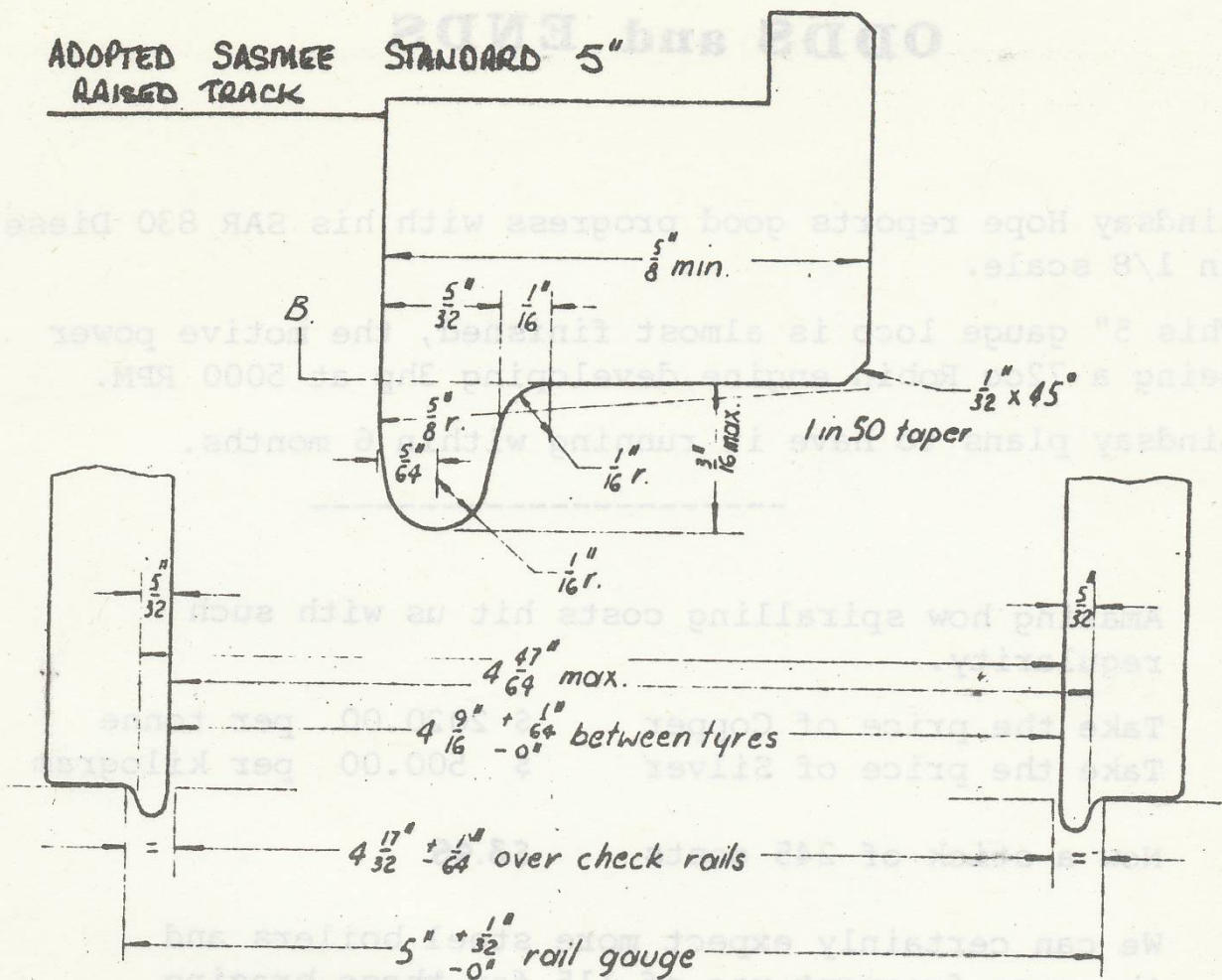


FIGURE 1
SMEE AND ME
STANDARD.

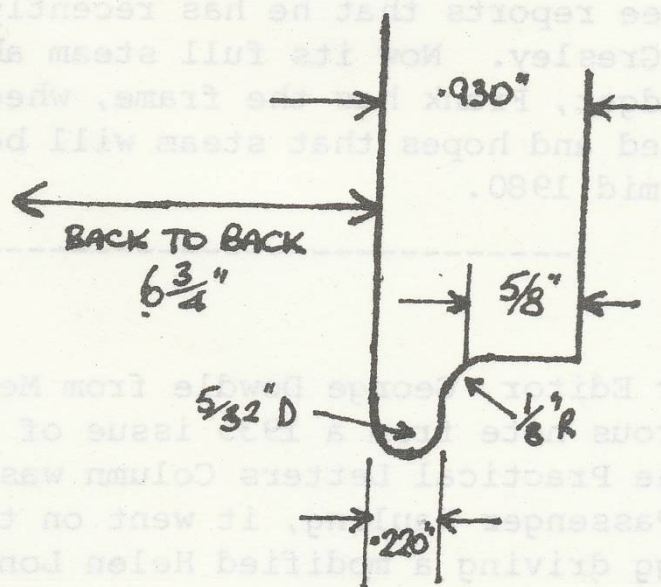
ADOPTED SASMEE
RAISED TRACK

STANDARD 5"



5" SYDNEY LIVE STEAMERS STANDARD

FIGURE 2



TOM ENGLAND WHEEL DIMENSIONS.

7 1/4"

FIGURE 3

ODDS and ENDS

Lindsay Hope reports good progress with his SAR 830 Diesel in 1/8 scale.

This 5" gauge loco is almost finished, the motive power being a 72cc Robin engine developing 3hp at 5000 RPM.

Lindsay plans to have it running within 6 months.

Amazing how spiralling costs hit us with such regularity.

Take the price of Copper	\$ 2020.00	per tonne
Take the price of Silver	\$ 500.00	per kilogram

Now a stick of 245 costs \$3.95

We can certainly expect more steel boilers and the more frequent use of 115 for those brazing jobs ?



Frank Lee reports that he has recently finished his 5" Gresley. Now its full steam ahead with a 7¼" Bridget, Frank has the frame, wheels motion completed and hopes that steam will be produced during mid 1980.

An Uncle of our Editor, George Dowdle from Melbourne recalls a humorous note from a 1935 issue of the ME. Appearing in the Practical Letters Column was an article on Model Loco Passenger Hauling, it went on to say. Quote "Mr. Clogg driving a modified Helen Long commenced passenger carrying at 2.45pm. He drove the loco continuously with the exception of picking up and setting down of passengers until 8.15pm. He did not stop even for a meal, we kept him supplied with water, coal and oil.." Unquote.

How's that for a constitution?

11

A fine example of the spirit that prevails at SASMEE was evident while Keith Besley has been "laid low" with illness.

Every Field Day Keith has made his Britannia and van available to SASMEE and to Terry Fitton to operate.

Thank you Keith for your support and interest and all members wish you a speedy return to good health.

For those of KIWI origin or having interest in NZ Rail, Alan Mitchell has available drawings of the NZ Railways K Class Loco.

Alan is building a 3½" gauge Greene King, which is well on the way. Alan prior to the Greene King had started on the Burnaby Bolton 2½" Pacific which was well on the way also. Once the 3½" Greene King is finished he will complete the 2½" gauge.

Alan's telephone number - 276.8185

Members are reminded of the Convention being held at Moorabbin from the 4th to 7th April, 1980.



Herbert Crocker and Terry Middleton now have their latest pride and joys (The two horizontal steam engines) under cover. Thanks again to Phil Waugh and his happy band of carpenters, plumbers, electricians and painters the Engine House, or as it is affectionately known "Herbert Crocker's engine house" is almost complete. This makes a fine display enclosure and will protect the machinery from the weather. To keep the engines going we need fuel, so please remember to bring along any burnable material, the bunker often gets low.

TIT BITS

Must record the excellent job Alan Lethbridge has done in restoring the diesel shunter previously belonging to Wally Brownlow.

Congratulations Alan.

Now that Fred Gordon has nearly finished his Simplex, son John is finding Dad a handy assistant. John is building a 5" gauge RX. Fred reports that during a past weekend 1000 1/16" brass rivets were fitted into the tender, Fred on the hammer and John on the dolly.

Those intrepid tourists or Jet setters the Middletons and the Cooks have recently returned from overseas trips. It's great to see Terry and Colin back at the Steam House.

While on the Steam House, a welcome new face attending the boiler is Tom Fowler. As most members are aware, manpower in the steam house is scarce and volunteers are needed.

Don Zanker came up with a good suggestion recently. To prevent rust, put some Camphor blocks in your tool kit.

A Happy Christmas





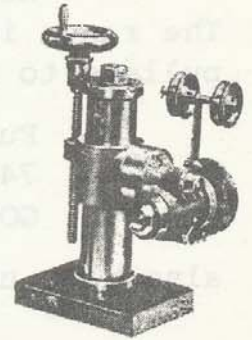
WHERE DO YOU GET IT ?

For the Model Engineer sources of equipment, books, etc., are often unknown. No doubt this list would not be complete but may be of some assistance.



TECHNICAL PUBLICATIONS

Rellim Technical Publications,
116A, Gouger Street,
Adelaide, 5000



The Management offers a 10% discount to SASMEE members. This Organisation has a comprehensive coverage of MAP BOOKS.

R & A MEARS and E & J WINTER both of NSW have extensive listings of Publications and drawings in their catalogues.

THE SEMAPHORE HOBBY CENTRE, at 44 Mart St. Semaphore South have a good selection of Publications.



SCRAP METAL:

A good supply of ferrous and non-ferrous metal can be obtained from:-

Metals (SA) Pty.Ltd.,
509 Churchill Road,
KILBURN.

A good source of non-ferrous metals can be obtained also from;

Simsmetal Pty.Ltd.,
Non-Ferrous Foundry,
Monmouth Street, RIDLEYTON.





USED TOOLS ETC.

Used tools and equipment can be obtained from;

Machinery Disposals,

62 Port Road,

HINDMARSH

The range is enormous from files to reamers,
pulleys to micrometers.

Futura Machinery Pty.Ltd.,

74 Goodwood Road,

GOODWOOD

also have used tools and machinery.



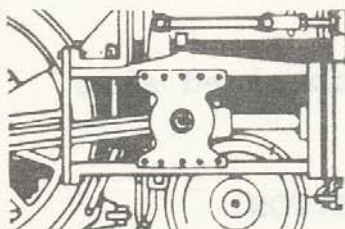
CASTINGS PLANS ETC.

The Semaphore Hobby Centre have a range of Stuart Turner
castings and fittings.

E&J Winter of Wallsend NSW, handle a comprehensive range for
the ME. Their catalogue which is quite informative is
available at approximately \$4.00. This Company has the O.B.
Bolton-Scale Models some of which are NSW prototype loco's
from 1½" to 5" gauge.

R & A MEARS of Padstow NSW, also handle an extensive range
for the ME, they have a comprehensive catalogue available on
request.

ADDRESS:- R & A Mears,
P.O. Box 85,
PADSTOW 2211 NSW



E & J Winter,
P.O. Box 126,
WALLSEND 2287, NSW

If there are other sources available and not mentioned,
please pass on to the Editor details so that they may be
brought to the attention of Members.

Rosters



CANTEEN

SAT 15 Dec. B. Niesche and W. Coles

JAN 1980

SAT 19 Jan G. Templeman and J.E.Davies

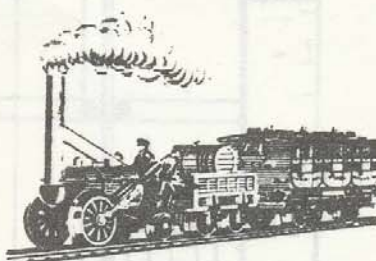
SUN 3 Feb A. Christopherson and T. Fowler

SAT 16 Feb A. Brabham and P. Denholm.

SUN 2 Mar M. Ambler and D. Atkinson

SAT 15 Mar T. Fitton and P. Gore

SUN 6 Apr K. Halstead and P. Lindblom



LOCO ROSTER

DECEMBER 15

I. Clark
P. Waugh
J. Beal
B. Francis

JANUARY 19

R. Skewes
R. Smyth
H. Bateup
K. Besley

FEB 3

I. Clark
P. Waugh
H. Bateup
B. Francis

FEB 16

J. Beal
I. Clark
J. Barks
K. Besley

MARCH 2

F. Lee
H. Bateup
P. Waugh
R. Smith

MARCH 15

R. Skewes
R. Smyth
I. Clark
B. Francis

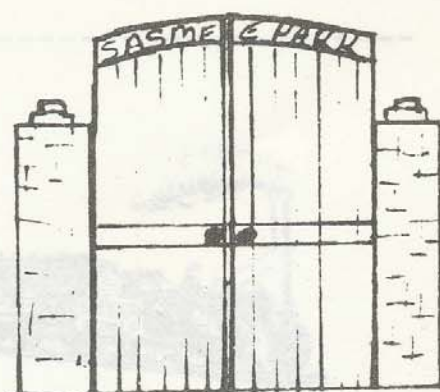
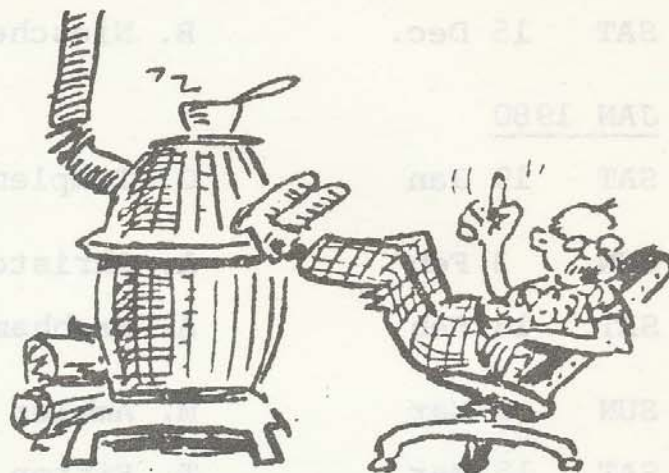
MARCH 30

J. Barks
J. Beal
P. Waugh
H. Bateup

Rosters

BOILER

DEC	15	J. Middleton
JAN	19	D. Brown
FEB	3	A. Brabham
FEB	16	H. Crocker
MAR	2	T. Fowler
MAR	15	B. Homann
MAR	30	P. Griscti



LOCK UP

DEC	8	W. Brownlow
DEC	22	F. Gordon
JAN	12	B. Holdsworth
JAN	26	J. Davey
FEB	9	I. Clark
FEB	23	A. Brabham
MAR	8	H. Bateup
MAR	22	P. Waugh
MAR	29	P. Griscti

Unlocking for Informal Meeting

JAN	22	B. Homann
FEB	26	F. Gordon
MAR	25	T. Fowler

SOLAR POWERED FLIGHT

Closely following the successful manpowered flight of recent, an English group 'Solar-Powered Aircraft Developments' have developed a Solar Powered Aircraft.

In dimension the aircraft Solar One, is similar to a standard glider, excepting of course is the power unit mounted on a stalk above the nose of the aircraft just in front of the Pilot.

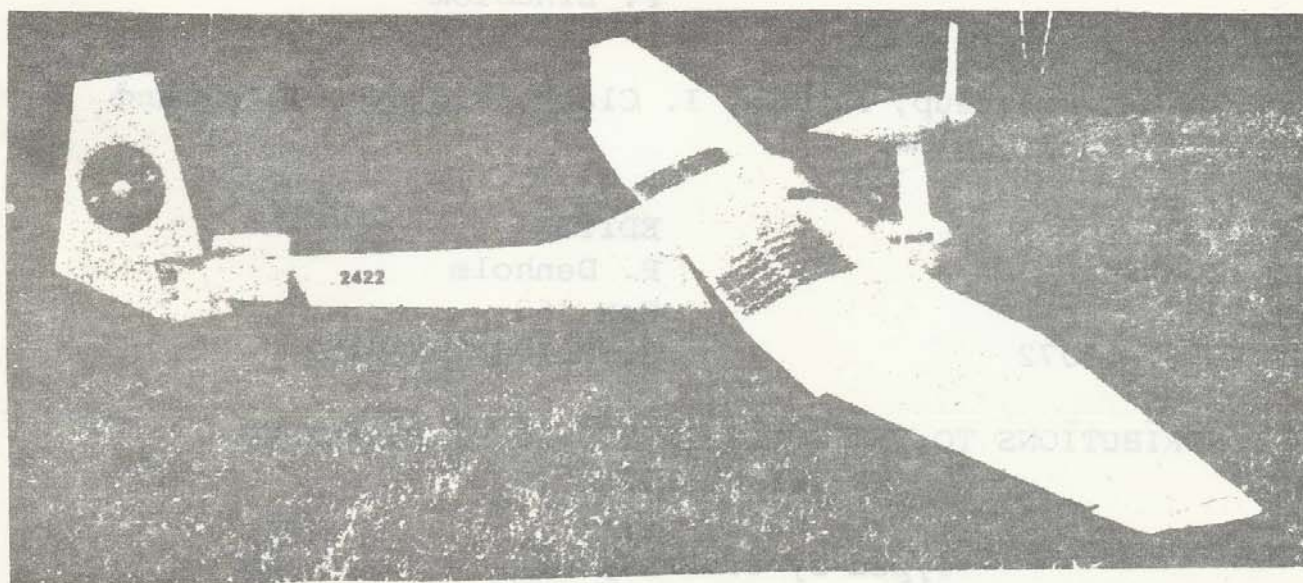
The engine consists of four electric motors, joined together to produce 4HP. The propellor is driven through a 3 to 1 reduction, rotating at 1100 RPM.

Solar One's has 24 Nickel Cadmium batteries having a capacity of 25AHR. 750 Solar cells attached to the top surface of the wing when charging the batteries to full capacity, provide sufficient power for the aircraft to climb for about 8 minutes.

The first flight was made on June 13th 1979, take off speed was 19 KTS, max speed 35 KTS, and max altitude was 80ft.

The cost of building the aircraft was approximately \$16,000, of which some \$12,000 was spent on the 750 Solar cells.

Quite an interesting project. This story was fully written up in the June 1979 issue of Flight International.



PATRON Mr. A.G. Flint, Executive Chairman, STA,
and Commissioner, ANR.

VICE PATRONS Mr. A.W.C. Crossman, Late SAR
Mr. W.D. Saunders, CME, ANR
Mr. C. Schaumlöffel, Manager, Loco Workshops,
Islington,
Mr. G. Nicolson, Tregalana, Whyalla
Mr. H.H. Salisbury.

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P. Griscti

VICE PRESIDENTS

I. Clark, J. Davey

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B. Homann

MINUTE SECRETARY

F. Gordon

TREASURER

B. Holdsworth

ASSISTANT TREASURER

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P. Waugh, T. Fowler

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H. Bateup, P. Waugh

SUPERVISORS BOAT POND

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B. Gamble

BOILER SAFETY COMMITTEE

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O. Thomas, H. Bateup

CANTEEN

P. Lindblom

GROUND LEVEL TRACK

A. Brabham, H. Bateup, A. Ide, I. Clark, R. Bloyd, T. England
J. Davey, W. Brownlow.

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CONTRIBUTIONS TO THE BULLETIN SHOULD BE FORWARDED
TO THE EDITOR

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